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EXTRAPOLATION :
A SCIENCE - FICTION
NEWSLETTER

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FROM THE LAUNCHING PAD

Arthur O. Lewis writes from Penn State that this year's Conference on Science-Fiction will be held at 1:15 p.m., December 27; subject: Science-Fiction: Current Problems. Lionel Stevenson will focus the discussion upon "The Artistic Problem: Science Fiction as Romance." Mark Hillegas -- fresh from his role as "spaceman" (See the ASA program) -- will report for the Bibliography Committee.

Since this is the fifth Conference, it is an extremely important one, for with it we 'come-of-age' and become eligible for permanent status at MLA.

All issues of Extrapolation are now in print again, and that together with requests from libraries has brought about the index to the first three volumes. As mentioned last spring, anyone who has subscribed to the Newsletter during that time may obtain issues missed at the regular price of \$0.60 each. New subscribers may complete their files at \$1.00 per issue because of the cost of reprinting, although there will be a special rate for libraries. With this issue, too, the new rate of \$2.50 for three years goes into effect.

One of the most interesting items of news for Extrapolation and its contributors has been the request of Franz Rottensteiner to translate and reprint articles and bibliographies in Germany.

Who can be of help to Dr. Joshua Lederberg, Professor of Genetics, School of Medicine, Stanford University. He wants to track down "a book? or article? with the title, or on the theme 'The Beehive World.' It should be an imaginative account of the future, over-populated earth." Bleiler's Checklist gives no clue, nor do I know it from recent fiction.

Question for discussion: Mark Twain's "The Great Dark," Letters from Earth, smacks of FitzJames O'Brien's "The Diamond Lens," while William Golding's The Inheritors explores a motif popular at the turn of this century. Yet neither has been called science-fiction in any review. Nor was John Hersey's The Child Buyer in any of at least 16 reviews. In fact, Robert Plank reports that only four of those 16 compared it to Huxley or Orwell. This, it seems to me, is one of our current problems.

See you in Washington, both at the Conference and in the LC, searching there for early pulp magazines.

T.D.C.

NOTES TOWARD A DEFINITION OF SCIENCE FICTION.

John B. Hamilton

Interested readers as well as professional students of science fiction have observed, in the pages of Extrapolation and elsewhere, that the search for a satisfactory definition of science-fiction has been hindered by a lack of generally accepted criteria by which to judge the effectiveness of a given work of science-fiction. It has also been observed that the view that one judges science-fiction by the same standards that one uses in judging any fiction, has merit as far as it goes; but, these critics continue, it seems to dodge the essential question inherent in the name of the genre, science-fiction. Further -- and this is the point of departure for these comments -- the definition of science fiction as a type of fantasy either denies or overlooks a considerable body of evidence, itself science-fiction, and does not contend with an equally fundamental issue: the relationship of literature and science.

One hitherto untried way to see the nature of that relationship is to go to the scientist himself, often an avid, highly critical, and literate reader of science-fiction. Conversations between this writer and a number of research scientists and engineers at places like the Space Technology Lab at Cape Canaveral and elsewhere, reveal a heartier contempt than that expressed by the professional student for some of the fantastic absurdities perpetrated as science-fiction, both in printed and in allegedly dramatic form in television and motion pictures. These scientists and engineers without exception expressed a hope that science-fiction writers would some day incorporate serious ethical, philosophical, religious, or social problems into their fiction so that it will perhaps go beyond the Buck Rogers stage. When pressed for a statement of how to do this, these practising scientists went almost at once into the sophomore's ancient problem: what is a good piece of fiction; then they began grappling with the conventional concepts of characterization, plot structure, unity, theme, and ultimate meaning. When these men used the term literature, they either stated -- or under questioning, admitted that they meant to imply -- that they used the term in the conventional belletristic context: works having wide appeal, excellence of form, powerful emotional effect, and sometimes a reasonably clear meaning as an interpretation of life itself -- in addition to skillful narration, characterization, and probability of plot. They, too, concluded that there was little difference in many of the basic criteria for good science-fiction and any other fiction except for the major one, subject matter. As for the fantastic, however, they were more lenient than many of us -- the professional students -- might be. Since what the layman calls the fantastic is literally the space scientist's conventional reality, they were willing to admit almost anything which falls within the realm of what they, trained scientists, would call the remotely possible. We concluded

that it was the treatment, then, and not the subject matter, per se, which took a piece of fiction out of the class "literature" and put it into the juvenilia. We also concluded, moreover, that it was a combination of two factors which makes the difference between juvenilia and formula fantasy on the one hand, and literature on the other: one, treatment; and two, meaning as an interpretation of some phase of life.

A better way of understanding the relationship between science and literature is to examine briefly a very small part of a considerable body of evidence which has been hitherto overlooked. This evidence, science-fiction novels written by seventy American practising scientists -- physicians -- between 1837 and 1960, reveals a number of pertinent ideas which may help lead to a more satisfactory definition of science-fiction than one which concentrates essentially on the element of fantasy. Between the years referred to, these practising scientists wrote over a hundred novels in which they made meaningful use of scientific concepts in order to create fiction. The nature of the concepts, the degree of significance, and the relationship of them to a definition of science-fiction can be seen by brief examination of a very small fragment of the evidence; far more, quantitatively speaking, can be found in varying degrees in the entire body of the evidence. (The primary bibliography accompanying these notes is not definitive, and because of space considerations is not now intended to be.) It is worth noting that these writers are all Americans; English and continental literature would produce a body of evidence equally as large and certainly as interesting.

The first of these physician-novelists, Robert Montgomery Bird (1806-1854), remembered by modern historians of fiction as the author of Nick of the Woods: or, The Jibbenainosay (1837), first stated a theory of physiological causation of human behavior in a satire called Shepherd Lee (1836), as follows:

I do verily believe that much of the evil and good of man's nature arises from causes and influences purely physical; that valour and ambition are as often caused by a bad stomach as ill-humor by bad teeth; that Socrates in Bonaparte's body, could scarce have been Socrates . . . ; and, finally, that those sages who labour to improve the moral nature of their species, will effect their purpose only when they have physically improved the stock. Strong minds may indeed be operated upon without regard to bodily bias, and rendered independent of it; but ordinary spirits lie in their bodies like water in sponges, diffused through every part of it, affected by the part's affections, changed with its changes, and so intimately united with the fleshly matrix, that the mere cutting off of a leg, as I believe, will, in some cases, leave the spirit limping for life.

It is at once obvious that while Bird is not making here a statement of physiological determinism, all-embracing in its scope, as a psychologist he was far in advance of the novelists of his times in observing

the spiritual and psychological effect of physiological crippling, amputation; and the like on the whole of the human organism.

Nick of the Woods, generally regarded as one of the best of the Indian tales of the early frontier, containing unromanticized Indians and credible settlers, is a bloody frontier novel about a Quaker, Nathan Slaughter, who becomes a terror to the Indians. Nathan is also an epileptic, whose first seizure occurs fairly late in the tale as he relates the murder of his family by a treacherous Indian. After Nathan has fallen to the ground in a convulsive seizure, a friend to whom he was telling the story loosens Nathan's neckcloth and dislodges his cap; whereupon the friend sees that "A horrible scar disfigured the top of his head, which seemed to have been, many years before, crushed by the blows of a heavy weapon; and it was equally manifest that the savage scalping-knife had done its work on the mangled head." It is quite clear from the context, and confirmed by examination of the manuscript notes in the University of Pennsylvania Library, that Bird intends the reader to understand that Nathan's epilepsy is of the type known to medicine as symptomatic, or traumatic, caused by brain damage. The second and third such attacks are accompanied by the traditional sequelae which characterize the epileptic. When necessary to produce good fiction, however, Bird eliminates or uses medical detail as a skillful novelist should, aware that he is writing not a clinical case book, but a novel. In other words, he skillfully subordinates physiology to fiction with a realism which, even if it was noticed by his contemporaries, seems to have passed unrealized by most modern historians.

Bird does not simply rest with the depiction of an epileptic attack in a man captured by Indians; the attack is first a part of the whole pattern of characterization of the leading character; second, that segment is then made a part of the background against which the novel takes place; and then, in turn, it helps establish a relationship between the two opposing forces in the narrative, the revenge-seeking Indian hater and the Indians who are bent on killing him. Bird goes on to make expert use of what the medical historians call the "clouded state" following the grand mal, as well as the violent and apparently motiveless excitement and running amok which the epileptic is often given to; known to the neurologist as epileptic furor, the acts of violence committed in this state are often intensely and insanely brutal, with the epileptic pursuing the act to a horrifying extreme. And so with Nathan, who savagely mutilates the bodies of his victims.

It must be noted, however, that Bird nowhere makes in the novel an overt statement of cause and effect between Nathan's convulsive seizures and his acts of violence, as he does clearly in his manuscript notebooks. In fact, in every episode where an Indian is killed by Nathan, Bird leaves the reader with the impression that the act is vicarious vengeance for the slaughter of Nathan's family. This revenge motif is the heart of the novel -- a story whose central character is the dreaded Jibbenainosay, avenger for the brutal savagery of the Indians. If, in fact, Bird had chosen to make a case of symptomatic or idiopathic

epilepsy into a case history, thinly disguised as a novel, Nick of the Woods would not be the successful novel it is.

The question now arises as to (1) the extent to which Bird has used scientific material -- medical knowledge, or (2) its effectiveness, and (3) the propriety of its use in a novel; that is, the impact of scientific knowledge upon a piece of literature. Careful examination of Bird's medical notebooks, used as student, practitioner, and medical school lecturer, as well as all the other manuscripts deposited by his heirs at the Rare Book Room of the University of Pennsylvania Library, reveals no descriptions or records of epileptic patients he may have observed or treated. It is possible that he might have used second hand knowledge; the assumption, however, that he is using first hand knowledge appears entirely justified by the known facts of his life and the descriptions incorporated into Nick of the Woods, the accuracy of which is supported by modern clinical evidence. The condition, so identified by Bird in the novel, is sufficiently emphasized to make a memorable impression on the reader; it gives a distinctive quality to the central character, yet it is neither ludicrous nor exaggerated, but accurate enough to be true to life; finally, it is so used that it provides characterization only and does not become a central part of the story, thus interfering with the narrative. The effectiveness of the usage has already been answered by readers; the novel went into over thirty editions, has been translated into three foreign languages, and has been universally praised by modern as well as older historians who have read it thoughtfully and critically.

Perhaps the most important point to remember for the sake of this discussion, however, is that a scientific idea informs the novel. It is impossible to tell whether the scientific idea suggested the story or whether the popularity of frontier fiction caused the author to search about for a protagonist. In this case a scientific concept determines the nature of the novel and its central character; it also helps reveal the meaning of the work; it is not window dressing with no integral relationship to the novel.

In the case of Oliver Wendell Holmes, we have a writer with greater popularity than Bird, with less literary skill as a novelist, but with an almost major importance as a physician and scientist. None of the three novels Holmes wrote between 1860 and 1885 received the critical acceptance of Bird's, but in them Holmes helped lay the foundation for a great deal of modern psychological fiction.

Holmes, like Bird, opposed the romantic concept of human and fictional character in the Autocrat series, proposing two ideas: one, the effect of physiological conditions on mental outlook; and two, the emotional crippling caused by deprivation of love. These become the core of Holmes's best known work, Elsie Venner (1861). These ideas were not new; but Holmes's particular application of them has added significance made by Holmes as a practising New England physician who, like Hawthorne, meditated on this particular aspect of the New England scene.

For Holmes, the concept of physiological causation of mental and moral attitudes was inextricably mixed with his theological concepts -- that is to say, religion and science and their interrelationships were a constant concern. At times, Holmes went so far as to express something approaching physiological determinism. But in the same series, he tempered this idea with an expression of his religious creed:

I have a creed, It is told in two words -- the first two of the Paternoster. And when I compared the human will to a drop in a crystal, and said I meant to define moral obligations, and not to weaken them, this was what I intended to express: that the fluent, self-determining power of human beings is a very strictly limited agency in the universe. The chief plans of its enclosing solid are, of course, organization, education, condition. Organization may reduce the power of the will to nothing, as in some idiots; and from this zero the scale mounts upwards by slight gradations. Education is only second to nature . . . If there is any improvement in modern theology, it is in getting out of the region of pure abstractions and taking these everyday working forces into account.

Holmes's final statement of this matter was put in a letter to Harriet Beecher Stowe, written sometime between 1875 and 1880:

My creed, as I said in my book of ten years ago, is to be found in the first two words of the Pater Noster. I know there is a great deal to shake it in the natural order of things, but my faith is strong enough to stand against all the untowardness of the blind elements amidst which we are placed here, and out of which our earthly tabernacles are shaped.

I see no corner of the Universe which the Father has wholly deserted. The forces of Nature bruise and wound our bodies, but an artery no sooner bleeds than the Divine Hand is placed upon it to stay the flow. A wound is no sooner made than the healing process is set on foot. Pain reaches a certain point, and insensibility comes on, -- for fainting is the natural anodyne of curable griefs, as death is the remedy for those which are intolerable.

Holmes's increasing concern with the interrelated problems of psychology, physiology, and religion as they affect young people shows clearly in all three of his novels. Too much dwelling on religion and sin produced, he felt, unhealthy beings, and good health he felt to be a prerequisite for a study of religion:

I have no doubt, [he said] that disgust is implanted in the minds of many healthy children by early surfeits of pathological piety. I do verily believe that He who took chil-

dren in His arms and blessed them loved the healthiest and most playful of them just as well as those who were richest in the tuberculous virtues.

Another modern concept of character, appearing in all three of Holmes's novels -- and over a hundred years later in the thought of the educational psychologists of the 1920's -- was summarized in another connection by the eminent psychiatrist, William Menninger in Psychiatry, Its Evolution and Present Status (Ithaca, New York: Cornell University Press, 1948, p. 5):

A person functions as a unit. His total reaction involves bones, muscles, nerves, emotions, and mind. Except for descriptive purposes his reaction cannot be separated into parts or segments. The older conception of a division into brain-mind-spirit versus body-soma-organism is no longer given credence. Every action or reaction, whether it is to bacteria or bullets, to teachers or parents, in loving or in hating, in health or disease, is always a total response of the entire individual to the situation. That response will show varying mixtures of its three components: psychological, chemical, and physical. The acceptance of this relationship has been a long time coming.

Holmes's important psychiatric influence through his fiction has fortunately been fully and skillfully analyzed by Dr. Clarence P. Oberndorf, then Clinical Professor of Psychiatry at Columbia University and a distinguished psychiatrist. His study, The Psychiatric Novels of Oliver Wendell Holmes, which went into a second edition in 1946, carefully documents in Holmes's novels the principles underlying verbal catharsis, immobilized emotions, incest fantasy, many Freudian libido concepts, anxiety neuroses, and schizophrenia, together with many of the relationships of these with religion and moral responsibility. Holmes can be seen clearly making his plea for his characters in his novels -- and for mankind -- on the basis of medical knowledge of man's nature; his plea is for divine -- and human -- pity and understanding, the latter, at least, an indispensable prerequisite for treatment of man's ills. It is important also to note that Holmes's ideas of sin -- in contrast to Hawthorne's, only seventeen years earlier -- are stated characteristically as medical and physiological symbolism, not theological. Holmes's insistence was that these factors in man's personality were amenable to understanding and treatment.

Elsie Venner, the main character in the novel by that name, is the product of emotional starvation in a decorous New England home; she is given to unusual dress, wild and passionate dancing while alone in her room, has a high temper, contradictory tastes and behavior habits, is seclusive, and is addicted to walking alone at night. These are her sins, rumored about the village to have been caused by her mother's having been bitten by a rattlesnake while Elsie was in

utero. Long after Elsie's mother dies in giving birth to her, it is her fate to fall in love with a proper young Boston medical student who ultimately spurns her; the emotional shock drives Elsie into what modern psychiatry recognizes as schizophrenic withdrawal, and she ultimately dies from complications resulting from refusal to eat.

The fact that the majority of the readers and critics, professional and amateur alike, missed Holmes's point when he proposed prenatal influence as a symbol for the influences which doomed Elsie to death beginning with her birth -- and her mother's death -- can be seen in the reviews which concern themselves almost solely with the theological debate about Calvinism and original sin, which Holmes is trying to make them see in realistic, physiological, sociological, psychological, and hereditary terms. When, finally, friendship, love, and religion all fail to reach this extremely unstable personality, destruction is the result. Through the character Elsie, Holmes does what any scientist, novelist, or poet does when he is faced with the necessity of being articulate about the inexpressible; he resorts to symbols or symbolic representation.

Holmes's skill as a novelist has been quite adequately denounced. The point to be made here is that lack of literary skill does not disguise the fact that in 1861 Holmes produced a relatively popular piece of science-fiction, the structure and meaning of which grew from a scientific idea, from which the meaning of the novel emerges.

Silas Weir Mitchell, one of the better living novelists between 1885 and 1910, an enormously productive man, wrote six books of medical works, two of which are still standard basic treatises; over a hundred pioneering monographs on clinical neurology; and some studies on toxicology which are still consulted in medical schools. His literary work includes besides a translation of the Middle English poem "Pearl," fifteen novels, four children's books, and four volumes of short stories. He began writing fiction in the 1860's and was old enough to have known Hawthorne and Whitman personally. Yet by the time Jack London, Frank Norris, and Upton Sinclair were reaching some painful conclusions about mankind, based on far poorer knowledge of heredity and human physiology than Mitchell's, Holmes's, or Bird's, Silas Weir Mitchell was still producing commercially successful novels.

By far the best fiction writer of all the physician novelists up to the twentieth century, Mitchell uses, nevertheless, no themes, ideas, or methods pertinent to the cross-fertilization of science and literature which have not already been demonstrated, beyond a marked and continued emphasis on man's positive potential for rising above his environment and for making use of latent hereditary powers, usually overlooked, to overcome hereditary weaknesses. His contribution was refinement of literary methods and presentation of realistic psychological situations of both a pleasant nature and otherwise, long before the term "naturalism" became a cliché in American liter-

ary criticism. In War Time, a novel published in 1884, based on Mitchell's Civil War experience as a medical officer at the Filbert Street Hospital in Philadelphia where the wounded from Gettysburg were pouring in, has much of grim reality, the cowardice, and the heroism of war many years before The Red Badge of Courage, as Prof. Ernest Earnest has long ago demonstrated. A second novel, Roland Blake (1886), uses the themes of lesbianism and sibling incest in a clear and skillful manner; Circumstance (1901) contains a frankly stated attack on ecclesiastically enforced celibacy, seen through the eyes of the physician; and Constance Trescott (1905) is a tragedy of a pathological personality which degenerates into a state of living death as a result of physiological shock.

The themes and ideas of Bird, Holmes, and Mitchell are also found in novels by many other physician-novelists, less known, such as Josiah Gilbert Holland, William Starbuck Mayo, William Alexander Hammond, Alfred Mercier, William Henry Holcombe, Edward W. Gilliam, Henry Rowland, and William Lee Howard -- some of whom had distinguished careers as physicians. However, as one might suspect, laymen, not medically trained, have also written "medicated" fiction, that is, novels using these same themes and ideas: physicians as members of society acting both as physicians and merely as characters in the novels; and fiction displaying human behavior, both good and bad, caused by an interaction of heredity and environment.

Physicians appear prominently as characters in two novels and three short stories by Nathaniel Hawthorne, the most memorable being Chillingworth in The Scarlet Letter. However, characters created by Sarah Orne Jewett (A Country Doctor, 1884), William Dean Howells (Dr. Breen's Practice, 1881), Elizabeth Stuart Phelps Ward (Dr. Zay, 1882), and Hamlin Garland (Rose of Dutcher's Coolly, 1895) -- all of them share the same shortcoming with Hawthorne: the physicians could as well have been farmers, lawyers, or blacksmiths as physicians; in other words, the plot grows less out of the character than is the case with similar characters created by Holmes and Mitchell. The irony of the relationship between Chillingworth and Dimmesdale has been universally praised, but physicians cannot be said to have a monopoly on the desire for the cuckold's revenge.

With respect to the matter of good and bad behavior seen as an interaction of heredity and environment, Charles Brockden Brown in 1798 (in Wieland), William Gilmore Simms in 1832 (in Martin Faber, The Story of a Criminal, and Confession, or the Blind Heart), Herman Melville in 1852 (in Pierre), Hawthorne in 1860 (in The Marble Faun), Frank Norris in 1899 (in MacTeague), Henry James in 1902 (in The Wings of the Dove), and Edith Wharton in 1911 (in Ethan Frome) -- these novelists, non-medically or scientifically trained, used this theme of good or bad behavior and heredity and environment, but with a significant difference from the use by the physician-novelists: the laymen have in general either avoided physical or hereditary cause and effect, or have put such an over-emphasis on effect as to virtually ig-

nore the causative factors; furthermore, the physicians have in general realized the potentialities of the theme more acutely.

A third scientific idea, the contribution of medical and scientific concepts to a better understanding of man, hardly even appears in the work of the major and minor non-scientifically trained novelists in America prior to the 1880's. This is a major concern of the physician-novelists, long before the 1880's when the all-pervasive idea of "scientific" realism was making itself felt. When, on the other hand, one recalls such exponents of realism and naturalism as Stephen Crane, Bret Harte, Hamlin Garland, Harold Frederic, and Frank Norris, one recalls at once the spirit of pessimism, despair, and something approaching agnosticism and atheism found prominently in American fiction during the last two decades of the nineteenth century and the first two decades of the twentieth. It is interesting to note the almost total absence of this spirit in the work of the physician-novelists of the period.

Seen, therefore, through concrete evidence of this kind, the impact of science on literature can be expressed thus: while it is obvious that the possession of a medical or scientific education does not guarantee success at novel writing, it is also obvious that if science may be said to have made a contribution to literature in general and to fiction in particular, and if this gain may be expressed in terms of a broader range, greater accuracy of detail, more exact observation, and better knowledge of the physical and mental nature of man, then the physician as novelist has contributed in varying ways and degrees to each of these points. The contribution has been shared with laymen. The difference between the contribution of the layman and of the physician where both use the same or similar materials has been in quantity and sometimes in quality. The physicians' use of medical and scientific knowledge has not been different in form or fundamental nature of the material, from that used by laymen. The difference is that the scientifically trained novelists stress the positive nature of the influence of science on the ethical relationships of man, and offer man examples which indicate hope, faith, and order -- not despair, doubt, and chaos. These science-fiction writers seem to conclude that determinism as an interpretation of the moral order of the universe is unscientific since it ignores, in its over-emphasis on heredity and environment, the proved positive capabilities of man which the physician as novelist has used to a hitherto unnoticed degree in his fiction. Some science-fiction novelists, therefore, using established fact as a basis for fiction, have denied the pessimistic implications of naturalism decades before naturalism became a literary cult or an ethical attitude in the American novel.

After careful examination of a representative, though small, quantity of a large body of science-fiction produced by practising physicians, it is difficult not to conclude that the road from literature to science and science to literature is not a one-way street. Traffic moves in both directions. Thus, before one can formulate a precise def-

inition of science-fiction, or differentiate between juvenile fantasy -- or adult fantasy -- and lasting literature which uses scientific subject matter and ideas, one must surely examine the process of cross-fertilization going on between literature and science. One must surely see the nature of the relationships. In short, the study of other phases of these relationships is in order.

Furthermore, it is well to admit that certain techniques are basic to any fiction, scientific or otherwise. However, the critical principle of organic growth cannot be wisely ignored -- which is to say that one of the phenomena of novels with lasting literary merit is that in the finished form they seem to be shaped by the growth of an idea, and the structure can be seen as a unified development of that idea. Therefore, two possible criteria for evaluation of science-fiction can be stated as follows: first, to what degree does a scientific concept determine the nature of the work involved as well as help reveal the meaning of the work; or, to what degree is the science in the work merely a superimposed garnish with no real integral relationship to the work? Second, does the work in question have a meaning on an adult level; does that meaning interpret in a consistent way, some phase, large or small, of man's existence? Or does it, rather, merely amuse, or create slack-jawed wonder? The interpretation need not necessarily be made by one having scientific training in a specific, scientific discipline; it is therefore not the exclusive property of the practising scientist. It is, nevertheless, an interpretation which reveals the unique contribution of the scientific idea.

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1. "Annotated Bibliography of Jules Verne's Voyages Extraordinaires, An." III (May 1962), 32-47.
2. "Annotated Checklist of American Science-Fiction: 1880-1915, An." I (December 1959), 5-23.
3. "Anti-Utopian Novel: Preliminary Notes and Checklist, The." II (May 1961), 27-32.
4. "Attitudes Toward Science in the Modern 'Inverted Utopia.'" II (May 1961), 23-26.
5. "Bibliography of H. P. Lovecraft, A." III (December 1961), 2-30.
6. "Bibliography of Secondary Materials on Jules Verne, A." II (December 1960), 5-16.
7. "Checklist of Articles Dealing with Science-Fiction, A." I (May 1960), 29-34.
8. "Classic: Aldous Huxley's Brave New World, The." II (May 1961), 33-40.
9. "H. P. Lovecraft as Mythmaker." I (May 1960), 35-37.
10. "Is Science-Fiction Art: A Look at H. G. Wells." II (December 1960), 17-19.
11. "Major Trends in American Science-Fiction: 1880-1915." I (December 1959) 2-4.
12. "Science-Fiction and the Idea of Progress." I (May 1960), 25-28.
13. "Some Recurrent Symbols in Science-Fiction." II (December 1960), 2-4.